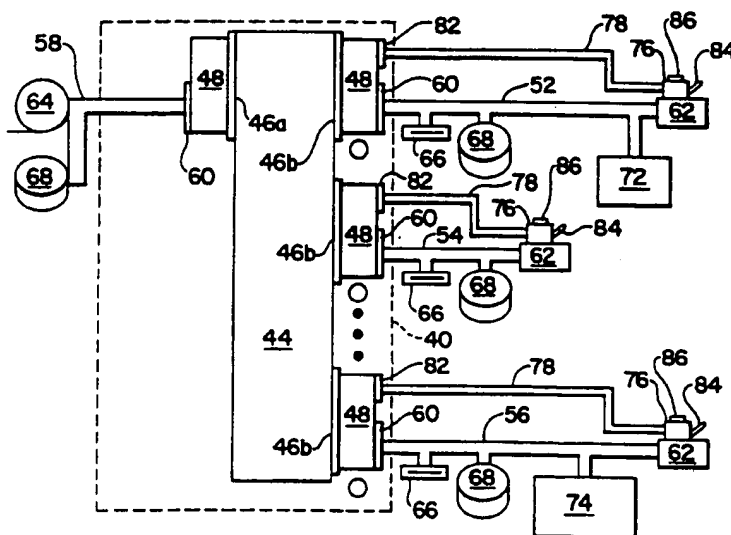




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(54) Title: A REPEATER/SWITCH FOR DISTRIBUTED ARBITRATION DIGITAL DATA BUSES



(57) Abstract

The technical field of the invention generally concerns digital computers and, in particular, repeaters or switches (40) for distributed arbitration digital data buses (52, 54, 56 and 58) to which devices (62, 64, 66, 68, 72 and 74) connect in parallel. The bus repeater/switch (40) includes a plurality of bus interface cards (48) that are connected to the distributed arbitration buses (52, 54, 56 and 58) for receiving signals from and transmitting signals to devices (62, 64, 66, 68, 72 and 74) connected thereto. The bus interface cards (48) connect to a control card (44) which allows signals from one of the sharing buses (52, 54 or 56) to be exchanged with the shared bus (58). The bus switch (40) also includes selector switch (84 or 88) for choosing which particular one of the sharing buses (52, 54 or 56) exchanges digital data signals with the shared bus (58). The bus switch (40) responds to signals on the distributed arbitration buses (52, 54, 56 and 58) and to phases of the protocol for those signals so that its presence between pairs of buses (52-58, 54-58 or 56-58) is imperceptible to devices (62, 64, 66, 68, 72 and 74) connected thereto.

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